ATTACHMENT 5
May 2010 - Groundwater Sample Information Sheets

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 169-D	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	34.55	ft
Depth to product		ft
Depth to water (DTW)	19.95	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	31.55	ft
Bubbles purged from flow cell?	(Y)/ N	
Is drawdown >0.3 feet	(Y)/ N	
Was passive sampling used?	Y / (N)	
Flowrate =		mL/min
ID number from controller console	# 15pm	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	14.69	14.70	14.72				
Spec. Cond (µmhos)	+/- 3%	.906	.907	.909				
D.O. (mg/L)	+/- 10%**	.42	.39	.38				
pH	+/- 0.1	7.52	7.52	7.53				
ORP (mV)	+/- 10 mV**	24	13	12				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5 / 19 / 10 Sample Time: 10 : 30 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: Need new covers "new pad"

Signature: _____ Date: 5/19/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 169-S	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	23.21	ft
Depth to product		ft
Depth to water (DTW)	20.00	ft

Sample Types (circle all applicable)

(Monitoring Well)
(Grab)/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling		
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	20.21	ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N	
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) / N	
3 Well volumes =	=	gal		Was passive sampling used?	Y / (N)	
Purge method (B = bailer, P = pump)	B / P			Flowrate =	1gpm	mL/min
				ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	15.11	14.95	14.91				
Spec. Cond (µmhos)	+/- 3%	.688	.690	.691				
D.O. (mg/L)	+/- 10%**	4.37	4.30	4.31				
pH	+/- 0.1	7.47	7.42	7.42				
ORP (mV)	+/- 10 mV**	86	86	86				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/19/10 Sample Time: 11 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: new pad

Signature: _____ Date: 5/19/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 167-1	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	32.65	ft
Depth to product		ft
Depth to water (DTW)	18.48	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
~~Split Sample~~
Duplicate (Duplicate ID: DUP-01)
~~MS/MSD~~
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling		
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	29.65	ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N	
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) / N	
3 Well volumes =	=	gal		Was passive sampling used?	Y / (N)	
Purge method (B = bailer, P = pump)	B / P			Flowrate =	1gpm	mL/min
				ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	15.37	15.38	15.39				
Spec. Cond (µmhos)	+/- 3%	.891	.893	.890				
D.O. (mg/L)	+/- 10%**	.32	.29	.27				
pH	+/- 0.1	7.66	7.65	7.65				
ORP (mV)	+/- 10 mV**	125	119	114				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5 / 19 / 10 Sample Time: 11 : 30 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 5/19/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 167-S	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	21.85	ft
Depth to product		ft
Depth to water (DTW)	18.25	ft

Sample Types (circle all applicable)
Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling		
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	18.85	ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N	
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) / N	
3 Well volumes =	=	gal		Was passive sampling used?	Y / (N)	
Purge method (B = bailer, P = pump)	B / P			Flowrate =	1 gpm	mL/min
				ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	14.40	14.42	14.45				
Spec. Cond (µmhos)	+/- 3%	1.168	1.165	1.170				
D.O. (mg/L)	+/- 10%**	.74	.59	.58				
pH	+/- 0.1	7.42	7.40	7.39				
ORP (mV)	+/- 10 mV**	61	79	78				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/19/16 Sample Time: 12 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: D. Jul Date: 5/19/16

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 165-S	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	19.60	ft
Depth to product		ft
Depth to water (DTW)	13.95	ft

Sample Types (circle all applicable)
(Monitoring Well)
(Grab)/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	16.60	ft
Bubbles purged from flow cell?	(Y) N	
Is drawdown >0.3 feet	(Y) N	
Was passive sampling used?	Y (N)	
Flowrate =	1 gpm	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	9.89	9.97	10.01				
Spec. Cond (µmhos)	+/- 3%	.797	~~3.78~~	.793				
D.O. (mg/L)	+/- 10%**	.64	.65	.60				
pH	+/- 0.1	7.73	7.73	7.73				
ORP (mV)	+/- 10 mV**	18	16	16				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/19/10 Sample Time: 13 : 30 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES NO explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 5/19/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-165-D	Well Location:

Monitoring Well Data	
Well Material	(PVC/SS/Teflon)
Inside Diameter, in.	(3/4 1 2 4 6)
Stick up or stick down height	ft
Total depth of well (TD)	46.45 ft
Depth to product	ft
Depth to water (DTW)	13.85 ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)	ft		Depth of pump placement (place mid-screen)	43.45 ft
Conversion value (CV)*	x		Bubbles purged from flow cell?	(Y) N
1 Well volume = H x CV	= gal		Is drawdown >0.3 feet	(Y) N
3 Well volumes =	= gal		Was passive sampling used?	Y (N)
Purge method (B = bailer, P = pump)	B / P		Flowrate =	1 gpm mL/min
			ID number from controller console	#

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	9.89	9.99	10.01				
Spec. Cond (µmhos)	+/- 3%	1.311	1.307	1.307				
D.O. (mg/L)	+/- 10%**	.45	.42	.41				
pH	+/- 0.1	7.88	7.87	7.87				
ORP (mV)	+/- 10 mV**	41	31	30				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/19/10 Sample Time: 13 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: ok

Signature: _____ Date: 5/19/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 166D	Well Location:

Monitoring Well Data	
Well Material	(PVC/SS/Teflon)
Inside Diameter, in.	(3/4 1 2 4 6)
Stick up or stick down height	ft
Total depth of well (TD)	49.60 ft
Depth to product	ft
Depth to water (DTW)	14.68 ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)	ft		Depth of pump placement (place mid-screen)	46.60 ft
Conversion value (CV)*	x		Bubbles purged from flow cell?	(Y) / N
1 Well volume = H x CV	= gal		Is drawdown >0.3 feet	(Y) / N
3 Well volumes =	= gal		Was passive sampling used?	Y / (N)
Purge method (B = bailer, P = pump)	B / P		Flowrate =	1gpm mL/min
			ID number from controller console	#

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	14.87	14.88	14.89				
Spec. Cond (µmhos)	+/- 3%	.716	.719	.726				
D.O. (mg/L)	+/- 10%**	.94	.88	.79				
pH	+/- 0.1	7.84	7.84	7.83				
ORP (mV)	+/- 10 mV**	56	47	46				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/19/10 Sample Time: 14 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: Ok

Signature: _____ Date: 5/19/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 166-S	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	19.00	ft
Depth to product		ft
Depth to water (DTW)	14.83	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	16.00 ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) N
3 Well volumes =	=	gal		Was passive sampling used?	Y (N)
Purge method (B = bailer, P = pump)	B / P			Flowrate =	1gpm mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	14.47	14.48	14.49				
Spec. Cond (µmhos)	+/- 3%	.789	.805	.809				
D.O. (mg/L)	+/- 10%**	.67	.63	.64				
pH	+/- 0.1	7.66	7.65	7.63				
ORP (mV)	+/- 10 mV**	92	92	92				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/19/10 Sample Time: 14 : 30 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 5/19/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-147-48	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	28.60	ft
Depth to product		ft
Depth to water (DTW)	11.26	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	25.60	ft
Bubbles purged from flow cell?	(Y) / N	
Is drawdown >0.3 feet	(Y) / N	
Was passive sampling used?	Y (N)	
Flowrate =	1gpm	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	14.13	14.16	14.17				
Spec. Cond (µmhos)	+/- 3%	1.339	1.334	1.335				
D.O. (mg/L)	+/- 10%**	.35	.33	.31				
pH	+/- 0.1	7.52	7.52	7.52				
ORP (mV)	+/- 10 mV**	-19	-24	-25				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/20/10 Sample Time: 9:00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 5/20/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-132R	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	19.00	ft
Depth to product		ft
Depth to water (DTW)	9.56	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	16.00	ft
Bubbles purged from flow cell?	(Y) / N	
Is drawdown >0.3 feet	(Y) / N	
Was passive sampling used?	Y / (N)	
Flowrate =	1spm	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	14.25	14.29	14.30				
Spec. Cond (µmhos)	+/- 3%	.973	.978	.980				
D.O. (mg/L)	+/- 10%**	1.52	1.42	1.30				
pH	+/- 0.1	7.69	7.68	7.68				
ORP (mV)	+/- 10 mV**	49	50	50				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/20/10 Sample Time: 9 : 30 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES NO explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: J. Jacobs Date: 5/20/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 148 R	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	24.45	ft
Depth to product		ft
Depth to water (DTW)	11.23	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	21.45	ft
Bubbles purged from flow cell?	(Y) / N	
Is drawdown >0.3 feet	(Y) / N	
Was passive sampling used?	Y (N)	
Flowrate =	1 gpm	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	13.25	13.22	13.20				
Spec. Cond (µmhos)	+/- 3%	1.242	1.228	1.227				
D.O. (mg/L)	+/- 10%**	.64	.57	.50				
pH	+/- 0.1	7.72	7.60	7.59				
ORP (mV)	+/- 10 mV**	160	160	159				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/20/10 Sample Time: 10 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: ok

Signature: _____ Date: 5/20/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 153	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	20.71	ft
Depth to product		ft
Depth to water (DTW)	12.52	ft

Sample Types (circle all applicable)
- (Monitoring Well)
- (Grab)/Composite
- Split Sample
- Duplicate (Duplicate ID: _____)
- (MS/MSD)
- Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling		
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	17.71	ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y)/ N	
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y)/ N	
3 Well volumes =	=	gal		Was passive sampling used?	Y /(N)	
Purge method (B = bailer, P = pump)	B / P			Flowrate =	1 gpm	mL/min
				ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	12.76	12.82	12.91				
Spec. Cond (µmhos)	+/- 3%	1,070	1,071	1,069				
D.O. (mg/L)	+/- 10%**	3.38	3.37	3.35				
pH	+/- 0.1	7.86	7.86	7.85				
ORP (mV)	+/- 10 mV**	176	176	176				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/20/10 Sample Time: 10 : 30 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 5/20/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 302	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	37.75	ft
Depth to product		ft
Depth to water (DTW)	13.51	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	34.75	ft
Bubbles purged from flow cell?	(Y) / N	
Is drawdown >0.3 feet	(Y) / N	
Was passive sampling used?	Y / (N)	
Flowrate =	1gpm	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	13.53	13.54	13.54				
Spec. Cond (µmhos)	+/- 3%	.606	.607	.605				
D.O. (mg/L)	+/- 10%**	1.51	1.33	1.29				
pH	+/- 0.1	8.07	8.06	8.05				
ORP (mV)	+/- 10 mV**	180	179	179				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/20/10 Sample Time: 11 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: ok

Signature: J. Jackson Date: 5/20/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 133-R	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	15.90	ft
Depth to product		ft
Depth to water (DTW)	9.56	ft

Sample Types (circle all applicable)
Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	12.90	ft
Bubbles purged from flow cell?	(Y) / N	
Is drawdown >0.3 feet	(Y) / N	
Was passive sampling used?	Y / (N)	
Flowrate =	150	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	12.71	12.71	12.70				
Spec. Cond (µmhos)	+/- 3%	1.079	1.081	1.077				
D.O. (mg/L)	+/- 10%**	2.68	2.63	2.60				
pH	+/- 0.1	7.72	7.70	7.69				
ORP (mV)	+/- 10 mV**	238	238	238				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/20/10 Sample Time: 11:30 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: ok

Signature: _____ Date: 5/20/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 152	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	18.61	ft
Depth to product		ft
Depth to water (DTW)	13.78	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	15.61	ft
Bubbles purged from flow cell?	(Y) / N	
Is drawdown >0.3 feet	(Y) / N	
Was passive sampling used?	Y / (N)	
Flowrate =	1 gpm	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	14.85	14.85	14.87				
Spec. Cond (µmhos)	+/- 3%	.549	.549	.551				
D.O. (mg/L)	+/- 10%**	1.49	1.30	1.30				
pH	+/- 0.1	7.81	7.80	7.79				
ORP (mV)	+/- 10 mV**	229	229	229				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/20/10 Sample Time: 12 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: ok

Signature: J. Julian Date: 5/20/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-146	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	23.34	ft
Depth to product		ft
Depth to water (DTW)	9.66	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling		
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	20.34	ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y)/ N	
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y)/ N	
3 Well volumes =	=	gal		Was passive sampling used?	Y /(N)	
Purge method (B = bailer, P = pump)	B / P			Flowrate =	1gpm	mL/min
				ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	13.47	13.43	13.40				
Spec. Cond (µmhos)	+/- 3%	.672	.676	.679				
D.O. (mg/L)	+/- 10%**	1.79	1.40	1.39				
pH	+/- 0.1	7.79	7.75	7.73				
ORP (mV)	+/- 10 mV**	243	243	243				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/20/10 Sample Time: 12 : 30 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: ok

Signature: _____ Date: 5/20/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 10-1R	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	15.65	ft
Depth to product		ft
Depth to water (DTW)	14.68	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other _____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	15.65	ft
Bubbles purged from flow cell?	(Y) / N	
Is drawdown >0.3 feet	(Y) / N	
Was passive sampling used?	Y / (N)	
Flowrate =	/gpm	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	12.10	12.01	11.99				
Spec. Cond (µmhos)	+/- 3%	.768	.764	.764				
D.O. (mg/L)	+/- 10%**	2.16	2.06	2.00				
pH	+/- 0.1	7.71	7.69	7.67				
ORP (mV)	+/- 10 mV**	245	245	245				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/20/10 Sample Time: 13:00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 5/20/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 150	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	18.75	ft
Depth to product		ft
Depth to water (DTW)	13.16	ft

Sample Types (circle all applicable)
Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling		
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	15.75	ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N	
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) / N	
3 Well volumes =	=	gal		Was passive sampling used?	Y / (N)	
Purge method (B = bailer, P = pump)	B / P			Flowrate =	1gpm	mL/min
				ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	13.47	13.46	13.44	13.42			
Spec. Cond (µmhos)	+/- 3%	.798	.797	.797	.796			
D.O. (mg/L)	+/- 10%**	6.64	3.61	2.25	2.17			
pH	+/- 0.1	7.60	7.62	7.62	7.62			
ORP (mV)	+/- 10 mV**	265	265	264	263			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/20/10 Sample Time: 13 : 30 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 5/20/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- IW-~~1~~ & IW-2	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	14.85	ft
Depth to product		ft
Depth to water (DTW)	13.00 ~~11.27~~ (SS)	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	11.85	ft
Bubbles purged from flow cell?	(Y) / N	
Is drawdown >0.3 feet	(Y) / N	
Was passive sampling used?	Y / (N)	
Flowrate =	1 gpm	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	13.60	13.36	13.22	13.20			
Spec. Cond (µmhos)	+/- 3%	.690	.691	.693	.693			
D.O. (mg/L)	+/- 10%**	1.58	1.56	1.40	1.31			
pH	+/- 0.1	7.83	7.80	7.78	7.78			
ORP (mV)	+/- 10 mV**	259	259	259	259			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/20/10 Sample Time: 14 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 5/20/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-IW-#1	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)		ft
Depth to product		ft
Depth to water (DTW)	11.27	ft

Sample Types (circle all applicable)
Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y)/ N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y)/ N
3 Well volumes =	=	gal		Was passive sampling used?	Y (N)
Purge method (B = bailer, P = pump)	B / P			Flowrate =	1 gpm mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	13.15	13.12	13.13				
Spec. Cond (µmhos)	+/- 3%	.895	.898	.895				
D.O. (mg/L)	+/- 10%**	.47	.40	.38				
pH	+/- 0.1	7.39	7.38	7.38				
ORP (mV)	+/- 10 mV**	-7	-18	-20				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/20/10 Sample Time: 15 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: ok

Signature: _____ Date: 5/20/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 163	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	19.37	ft
Depth to product		ft
Depth to water (DTW)	11.00	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	16.37	ft
Bubbles purged from flow cell?	(Y) / N	
Is drawdown >0.3 feet	(Y) / N	
Was passive sampling used?	Y / (N)	
Flowrate =	1 gpm	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	14.06	14.16	14.17				
Spec. Cond (µmhos)	+/- 3%	.655	.654	6.55				
D.O. (mg/L)	+/- 10%**	.83	.71	.69				
pH	+/- 0.1	7.65	7.64	7.62				
ORP (mV)	+/- 10 mV**	49	47	46				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/20/10 Sample Time: 15 : 30 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 5/20/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

ility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 173	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	17.64	ft
Depth to product		ft
Depth to water (DTW)	13.50	ft

Sample Types (circle all applicable)
Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling	
Depth of pump placement (place mid-screen)	14.67 ft
Bubbles purged from flow cell?	(Y) / N
Is drawdown >0.3 feet	(Y) / N
Was passive sampling used?	Y / (N)
Flowrate =	1 gpm mL/min
ID number from controller console	#

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

eld Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	13.24	13.24	13.23				
Spec. Cond (µmhos)	+/- 3%	.643	.644	.646				
D.O. (mg/L)	+/- 10%**	.73	.66	.61				
pH	+/- 0.1	7.72	7.71	7.70				
ORP (mV)	+/- 10 mV**	136	136	135				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/20/10 Sample Time: 16 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 5/20/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

ility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 156	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	18.44	ft
Depth to product		ft
Depth to water (DTW)	12.28	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	15.44	ft
Bubbles purged from flow cell?	(Y) / N	
Is drawdown >0.3 feet	(Y) / N	
Was passive sampling used?	Y / (N)	
Flowrate =	150pm	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

eld Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	12.46	12.43	12.41				
Spec. Cond (µmhos)	+/- 3%	.537	.547	.554				
D.O. (mg/L)	+/- 10%**	2.52	2.35	2.22				
pH	+/- 0.1	7.83	7.81	7.81				
ORP (mV)	+/- 10 mV**	172	172	172				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/20/10 Sample Time: 17:00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 5/20/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

-ility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 151	Well Location:

Monitoring Well Data

Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	18.53	ft
Depth to product		ft
Depth to water (DTW)	1405	ft

Sample Types (circle all applicable)

- Monitoring Well
- Grab/Composite
- Split Sample
- Duplicate (Duplicate ID: ______________)
- MS/MSD
- Other______________

Conventional sampling ⇐OR⇒ **Micropurge sampling**

Conventional sampling	
Height of water column (H = TD – DTW)	ft
Conversion value (CV)*	x
1 Well volume = H x CV	= gal
3 Well volumes =	= gal
Purge method (B = bailer, P = pump)	B / P

Micropurge sampling	
Depth of pump placement (place mid-screen)	15.53 ft
Bubbles purged from flow cell?	(Y) N
Is drawdown >0.3 feet	(Y) N
Was passive sampling used?	Y / (N)
Flowrate =	1 gpm mL/min
ID number from controller console	#

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

-eld Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	12.13	12.10	12.09				
Spec. Cond (μmhos)	+/- 3%	.609	.611	.614				
D.O. (mg/L)	+/- 10%**	2.30	2.14	2.09				
pH	+/- 0.1	7.75	7.73	7.71				
ORP (mV)	+/- 10 mV**	196	197	197				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/21/10 Sample Time: 9 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 μm cartridge / other: ________
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/(Slightly Turbid)/Turbid/Very Turbid)
Well condition: OK

Signature: [signature] Date: 5/21/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 157	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	17.15	ft
Depth to product		ft
Depth to water (DTW)	12.21	ft

Sample Types (circle all applicable)
Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	14.15 ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	Y / N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	Y / N
3 Well volumes =	=	gal		Was passive sampling used?	Y / N
Purge method (B = bailer, P = pump)	B / P			Flowrate =	1 spm mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	12.28	12.23	12.20				
Spec. Cond (µmhos)	+/- 3%	.804	.805	.804				
D.O. (mg/L)	+/- 10%**	1.28	1.11	1.00				
pH	+/- 0.1	7.69	7.67	7.65				
ORP (mV)	+/- 10 mV**	213	213	212				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/21/18 Sample Time: 9 : 30 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: ok

Signature: _____ Date: 5/21/18

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 164	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	24.95	ft
Depth to product		ft
Depth to water (DTW)	19.29	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	21.95 ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	Y / N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	Y / N
3 Well volumes =	=	gal		Was passive sampling used?	Y / N
Purge method (B = bailer, P = pump)	B / P			Flowrate =	1 gpm mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	14.53	14.46	14.40				
Spec. Cond (µmhos)	+/- 3%	.657	.653	.654				
D.O. (mg/L)	+/- 10%**	.65	.54	.45				
pH	+/- 0.1	7.73	7.72	7.71				
ORP (mV)	+/- 10 mV**	213	213	213				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/21/10 Sample Time: 10:00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES NO explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 5/21/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

ility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 160	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	13.65	ft
Depth to product		ft
Depth to water (DTW)	4.00	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	10.65	ft
Bubbles purged from flow cell?	(Y) / N	
Is drawdown >0.3 feet	(Y) / N	
Was passive sampling used?	Y / (N)	
Flowrate =	1 gpm	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

eld Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	13.05	12.91	12.90	12.80	12.79		
Spec. Cond (µmhos)	+/- 3%	1.444	1.446	1.446	1.450	1.452		
D.O. (mg/L)	+/- 10%**	2.03	1.62	1.40	1.38	1.35		
pH	+/- 0.1	7.81	7.76	7.76	7.74	7.73		
ORP (mV)	+/- 10 mV**	128	127	128	128	124		
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/21/10 Sample Time: 10 : 30 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: OK

Signature: _____ Date: 5/21/10

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

ility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 161	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(3/4 1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	14.00	ft
Depth to product		ft
Depth to water (DTW)	5.35	ft

Sample Types (circle all applicable)
Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	11.00 ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y)/N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y)/N
3 Well volumes =	=	gal		Was passive sampling used?	Y (N)
Purge method (B = bailer, P = pump)	B / P			Flowrate =	1gpm mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

eld Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	10.60	10.59	10.53				
Spec. Cond (µmhos)	+/- 3%	.557	.547	.551				
D.O. (mg/L)	+/- 10%**	2.80	2.77	2.78				
pH	+/- 0.1	7.41	7.39	7.39				
ORP (mV)	+/- 10 mV**	143	142	143				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: N/A gallons
Sample Date: 5/21/10 Sample Time: 11 : 00 (military time)
Was metals sample filtered prior to preservation? YES (NO) method: 0.45 µm cartridge / other: _____
Color of water before filtration: N/A After filtration: N/A
Reaction upon addition of preservatives? YES (NO) explain: N/A
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: ok

Signature: _____ Date: 5/21/10